Small Business Innovation Research/Small Business Tech Transfer

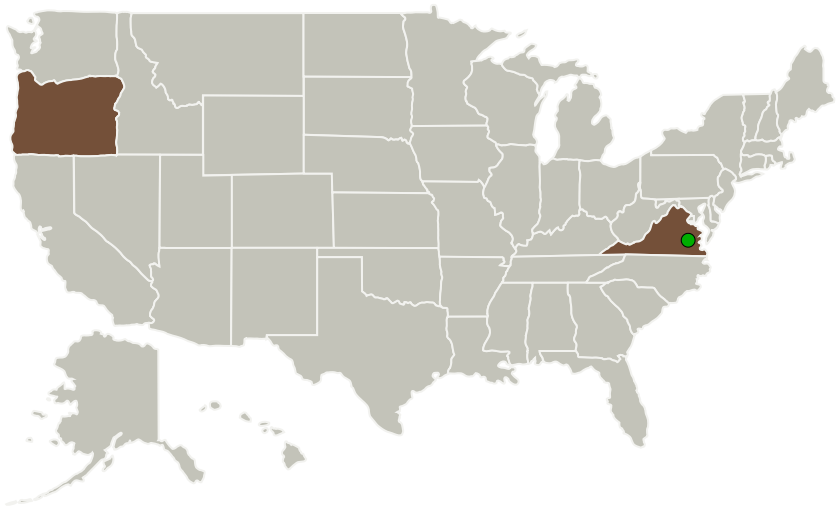
Integrated Technologies Supporting Seamless Oceanic Transitions, Phase II

Completed Technology Project (2017 - 2019)

Project Introduction

In this SBIR effort, we integrate existing technologies to create an infrastructure that is ready to leverage emerging technologies to realize an oceanic Trajectory-based Operations (TBO) capability with seamless transitions to/from domestic/oceanic airspace. The system includes the processing of all forms of domestic/oceanic airspace surveillance, including the emergence of space-based Automatic Dependent Surveillance - Broadcast (ADS-B), FAA Ocean21 processing and dynamic airspace management, weather information from GOES-R satellites facilitating the Offshore Precipitation Capability (OPC), oceanic conflict probing first established in the Oceanic Conflict Advisory Trial (OCAT), Dynamic Airborne Reroute Procedures (DARP), and the use of Trajectory Options Sets (TOSs) facilitated by the Collaborative Trajectory Options Program (CTOP).

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
The Innovation Laboratory, Inc.	Lead Organization	Industry Women-Owned Small Business (WOSB)	Portland, Oregon
Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia

Integrated Technologies Supporting Seamless Oceanic Transitions, Phase II Briefing Chart Image

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Primary U.S. Work Locations	
Oregon	Virginia

Project Transitions

April 2017: Project Start

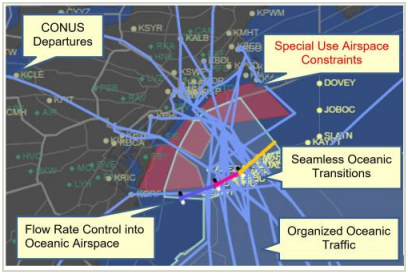
April 2019: Closed out

Closeout Documentation:

- Final Summary Chart*(https://techport.nasa.gov/file/140973)*

Images

Briefing Chart Image
Integrated Technologies Supporting Seamless Oceanic Transitions, Phase II Briefing Chart Image *(https://techport.nasa.gov/image/130751)*



Final Summary Chart Image
Integrated Technologies Supporting Seamless Oceanic Transitions, Phase II *(https://techport.nasa.gov/image/129693)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

The Innovation Laboratory, Inc.

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

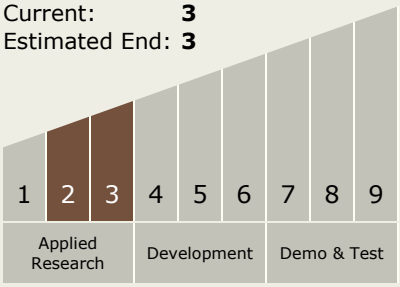
Carlos Torrez

Principal Investigator:

Jimmy Krozel

Technology Maturity (TRL)

Start: **2**
Current: **3**
Estimated End: **3**



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Technology Areas

Primary:

- TX16 Air Traffic Management and Range Tracking Systems
  - TX16.4 Architectures and Infrastructure

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System